REMARKS

Status of Claims

• Claims **1-14, 17-30** and **35-44** are currently pending.

Amendments to the Claims

Applicants have amended claim **28**, which includes the limitation "*wherein the protective coating is insoluble in organic solvents*".

Comments on the Previously filed Amendment after Final

Applicants submitted an Amendment after Final on 08/12/2003. Applicants desire that the same amendments and arguments presented regarding the claim rejections be re-considered in this RCE, in addition to new arguments presented below.

103 Rejections

In the Advisory Action dated 09/09/2003, the Office repeated the rejections of claims **1-14, 17-27** and **35-42** under 35 USC 103(a) as being unpatentable over *Kao et al.* in view of *Wu et al.*

Issue #1. The Office has failed to make a *prima facie* case of Obviousness.

In order to make a *prima facie* case of obviousness, the Office **must show** that the combination of references (*Kao et al* and *Wu et al*) teach **all** of the elements recited in Applicant's claims.

Kao et al **does not teach** a vapor-deposited protective layer that is insoluble in water or organic solvents, which is directly in contact with the sensitive area. Instead, *Kao* teaches a water soluble layer (which is **not a water insoluble material**) directly in contact with released MEMS structures.

Wu et al **does not teach** a vapor-deposited protective layer that is insoluble in water or organic solvents, which at is directly in contact with the sensitive area. Instead, *Wu* teaches that the material directly in contact with the sensitive area is a thick (e.g., 10 mil) layer of a **silicon elastomer** (which is **not a vapor-deposited material**). *Wu* then teaches that a parylene material is then applied **as a second layer on top of** the silicon elastomer first layer. In *Wu*, the parylene second layer protects the silicon elastomer first layer from jet fuel and oil. However, *Wu* does not teach a parylene layer that is directly in contact with the sensitive area. *Wu* simply does not recognize the problem of large hydrodynamic forces applied to fragile released MEMS structures

when liquid baths are used to remove the protective coating; *Wu* never discusses this aspect of MEMS fabrication.

Since neither *Kao* or *Wu* teach a vapor-deposited protective layer that is insoluble in water or organic solvents, which is directly in contact with the sensitive area (as recited in applicant's claims **1-14**, **17-27** and **35-42**) then **not all of the elements ar present** in the combined references. Therefore, a *prima facie* case of obviousness cannot be made, and the rejections should be withdrawn.

Issue #2. The Office has failed to provide any teaching, suggestion, or motivation to make the combination of *Kao et al* with *Wu et al.*

The Office has failed to present any line of reasoning, specific understanding or principle within knowledge of a skilled artisan, or objective evidence that **teaches, suggests or motivates** why a person of ordinary skill in the art would make the combination of *Kao et al.* and *Wu et al.*

The Office improperly uses **hindsight** in choosing prior art references to combine in its 103 rejections (*See* MPEP 2145).

Without such a teaching, suggestion, or motivation to combine *Kao et al* with *Wu et al.*, the rejections of claims **1-14**, **17-27** and **35-42** under 35 USC 103(a) is improper and should be withdrawn.

Issue #3. The references cited by the Office teach away from making the combination.

Kao **teaches away** from using a water insoluble material (such as parylene) as a protective layer directly in contact with released MEMS structures:

> *"A significant **problem** with use of photoresist **or any other substantially water insoluble material** as the protective layer is the requirement of a post saw clean[ing] operation using environmentally unfriendly solvents (i.e., acetone) to remove the protective layer from the surface of the wafer and associated microelectromechanical systems".*
> (See *Kao et al.*, Col. 1, lines 56-65)

Kao's solution to this problem (*which is the gist of his invention*) is to use a **water soluble** protective layer that is directly in contact with the MEMS structures, so that undesirable solvents (like acetone) don't need to be used when removing the temporary coating; all that is needed is a simple water bath. *Kao* simply does not recognize the problem of large hydrodynamic forces applied to fragile, released MEMS structures when using liquids (i.e., water) to remove the protective coating.

Claims **1-14**, **17-27** and **35-42** require that the protective coating directly in contact with the sensitive area be water **insoluble.** *Kao* **clearly teaches away** from this.

It is improper to combine these two references when the references themselves teach away from their combination (See MPEP 2145.X.D2). Accordingly, the rejections are improper and should be withdrawn.

Rejection of Claims **28-30** and **43-44** under 35 USC 103(a)

The office rejected claims **28-30** and **43-44** under 35 USC 103(a) as being unpatentable over *Kao et al.* in view of *Smith et al.*

In response, applicants have amended claim **28** to recite, *inter alia*, a limitation that the **protective coating is insoluble in organic solvents.** Claim **43** includes the same limitation.

As admitted by the Office, *Kao et al.* does not teach that the protective coating directly in contact with the sensitive area is insoluble in organic solvents. Since neither *Kao et al.* nor *Smith et al.*, either alone or in combination, teach **all of the limitations** of claims **28** and **43**, a *prima facie* case of obviousness cannot be made, and, hence, the rejections should be withdrawn.

Accordingly, claims **28** and **43** are now in condition for allowance.

Claims **29-30** depend from claim **28**. As presented above, claim **28** is now in condition for allowance. All claims depending from an allowed claim are allowable. Therefore, claims **29-30** are now in condition for allowance.

Claim **44** depends from claim **43**. As presented above, claim **43** is now in condition for allowance. All claims depending from an allowed claim are allowable. Therefore, claim **44** is now in condition for allowance.

Application No. 09/955,722
SD-6436.1 S-97675

CONCLUSION

Applicants have responded to each and every objection and rejection, and urge that claims **1-14**, **17-30** and **35-44** as presented are now in condition for allowance. Applicants request expeditious processing to issuance.

Respectfully submitted,

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